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ABSTRACT

The University of Minnesota's rhetoric department surveyed other Big Ten universities for the procedures used by those schools to exempt students from the required freshmen writing course and analyzed data about students in their own required rhetoric courses (Rhetoric 1101/1102). The school survey shows that nine Big Ten schools have required writing courses, that individual schools exempt from 4% to 90% of their students from the writing requirements, and that the schools rely primarily on students' performance on either the American College Testing Program's English Test or on the verbal scores in the Scholastic Aptitude Test (SAT) in their decisions to exempt students from required courses. The results of the student data analysis, however, show a significant positive relationship between success in Rhetoric 1101 and high school English grades, high school percentile rank, high school grade point average, and scores on the verbal portions of the preliminary SAT. No significant correlations were found to exist between any of the variables used in the study and Rhetoric 1102. As a result of the data collected, procedures for exempting students from the rhetoric courses are recommended and listed. (EL)

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EXEMPTION, PREDICTIVE VALIDITY, AND RHETORIC 1101 AND RHETORIC 1102:
A Report to the Dean of the College of Agriculture, University of Minnesota

(Abstract)

This report, prepared for the Dean of the College of Agriculture, University of Minnesota has two purposes: (1) to identify procedures used by the universities in the Big Ten to exempt students from the freshman writing requirements; (2) to determine potential predictors for two courses, Rhetoric 1101 (writing from personal experience) and Rhetoric 1102 (research writing) offered by the Rhetoric Department.

To determine what exemption procedures are used by Big Ten universities, a questionnaire was developed and sent to English departments of these universities. As of June, 1976, nine of these universities required at least one writing course. The percentage of students exempted at these universities ranged from four percent to ninety percent. The universities relied primarily on a student's performance on either the ACT-E or the SAT-V in deciding which students to exempt.

After the literature on prediction and exemption was examined, the following variables were used in the predictive validity study:

- (1) scores on the PSAFV and PSAT-M;
- (2) scores on the ACT tests in English, Math, social studies and natural science, as well as the ACT composite;
- (3) high school percentile rank;
- (4) high school grades in English, math, social studies, and natural science;
- (5) high school grade point average.

Students enrolled in Rhetoric 1101 and Rhetoric 1102 were included in the analysis, and a stepwise multiple regression analysis was used to identify the best predictors for each course. The results showed that there are significant ($<.001$) positive relationship between Rhetoric 1101 and high school English grade, high school percentile rank, high school grade point average, and PSAT-V score. There are, however, no significant correlation between these or other variables and Rhetoric 1102.

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This report is written in response to a request from John Goodding, Acting Dean of the College of Agriculture, that the Rhetoric Department undertake a study to identify which incoming students to the Institute of Agriculture might be the best candidates for exemption from one or both of the required freshman rhetoric courses: Communications I--Rhetoric 1101; and Communications II--Rhetoric 1102. Dean Goodding and David Schuelke, Head of the Rhetoric Department, agreed that a predictive validity study should be carried out, and Dr. Schuelke appointed us -- Earl McDowell and Arthur Walzer-- to conduct the study.

Review of the Literature

Before undertaking the study itself, we reviewed the literature on predictive validity and exemption. The literature examined included reports generated by a computerized search of the Educational Resources Information Clearing House (ERIC) and additional reports published predominately by the Educational Testing Service. The literature indicates that the best predictor of success for the first year of college work as measured by overall grade point average is high school data, but the best predictor of grades in freshman English courses specifically is one of a number of verbal aptitude or achievement tests, such as the Scholastic Aptitude Test - Verbal (SATV), the English Composition Test, or the American College Testing Program's English Test (ACTE).

That high school average or rank in class is a better predictor of success in the first year of college than are scores on aptitude tests has been known since Brigham (1932) reported the results of his studies of the first students to take the College Board Scholastic Aptitude Test (p. 345). Studies of much larger populations by Shrader (1971) of data collected pre-

dominately by the College Board Validity Service in 1964-66 showed high school rank or average yielding a median validity coefficient of .55 (p. 127). Median validity coefficients for the SAT scores taken individually were .33 and .39 (p. 121). Studies done by Passons (1967) and Black (1969) also show the superiority of high school data to test scores for predicting first year overall success. Black states that this is "perhaps the most reliable research finding in education . . ." (p. 7).

Test scores, however are superior to high school data as predictors of success in freshman English. The literature indicate that the SATV, the English Composition Test, and the ACTE are slightly superior predictors than is high school data. Shrader's studies showed a median validity coefficient at .34 for the SATV as a predictor of the freshman English grade, while the validity coefficient of the high school data was .32 (p. 139). Shrader's findings confirmed the superiority of the SATV to high school data that had been previously noted by Weiss in 1957 (Fremer and Chandler, pp. 164-165) and others.

The College Board's English Composition Test and the American College Testing Program's English test (ACTE) equal or surpass the validity coefficients of the SATV. Godshalk, Swineford, and Coffman (1966) report that in 1963-1964 the predictive power of the College Board's English Composition Test surpassed the predictive power of the SATV for freshman English. The 1963-1964 version of this test included a written essay. Basing their conclusions on studies comparing the predictive powers of versions of the Composition Test that included an essay section to those that did not, Godshalk, et al. attribute the increasing validity coefficient of the new English Composition Test to the inclusion of an essay section

(p. 39), a conclusion seconded by Fremer and Chandler (p. 166).

Studies by Munday (1965) and Passons indicated that the ACT and the ACTE equal the predictive power of the SATV for Freshman English.

The Survey of Big Ten Universities and the Predictive Validity Study

The purposes of this study were to determine the freshman writing requirement and the exemption procedures in effect at the other Big Ten universities and to determine if there were potential predictors for Rhetoric 1101 and Rhetoric 1102. Toward the first end, we developed and sent a questionnaire to the English Departments of other Big Ten universities; toward the second end, we conducted a stepwise multiple regression analysis. Students enrolled in Rhetoric 1101 and or Rhetoric 1102 were included in this analysis. After consultation with Dr. Roberts Armstrong, Coordinator of Research, Office of Admissions and Records, Reporting and Research Divisions and an examination of the literature on prediction and exemption (see above), we decided to include the following variables when available for each student in the predictive validity study:

- (1) the scores on the Preliminary Scholastic Aptitude Verbal and Math tests (PSATV and PSATM), which are taken by high school students in the junior year;
- (2) the scores on the American College Testing (ACT) program's English, math, social studies, and natural science tests, as well as a composite ACT score;
- (3) high school percentile rank;
- (4) high school grades in English, math, social studies and natural science;
- (5) high school grade point average.

Overall correlation coefficients (including means, standard deviations and

number of cases) for each variable were computed with Rhetoric 1101 and Rhetoric 1102. Next, the same types of analysis was completed for Agriculture, Forestry and Home Economics majors. A stepwise multiple regression analyses was then completed to determine the best potential predictors for each course. Thus the research attempted to answer three basic questions:

- (1) What are the freshman requirements in composition or English and exemption procedures for those courses at other Big Ten universities?
- (2) What test scores and high school data are the best predictors for Rhetoric 1101?
- (3) What test scores and high school data are the best predictors for Rhetoric 1102?

RESULTS

Table I reveals that the exemption procedures and percentages of students exempted from basic writing courses varies among the Big Ten universities. Five universities only require one course and one university does not require any course. English departments utilize primarily ACT and SAT scores as a method to exempt students. Percentages of students exempted varies from 4% to 90%.

In Tables II and III the basic correlation analysis (including means, standard deviations, and number of cases) is reported. The results indicate that there are significant ($< .001$) positive relationships between Rhetoric 1101 and high school English, percentile ranks scores and grade point average scores and PSAT verbal scores. There are, however, no significant correlations between these or other variables and Rhetoric 1102.

In Table IV correlations between Rhetoric 1101 and Rhetoric 1102 and aptitude and high school data are reported. These results support the

previous findings that high school English, percentile class rank and grade point average, and PSAT verbal scores correlate significantly ($<.001$) with Rhetoric 1101. Again, no significant correlations occur between Rhetoric 1102 and potential predictors.

Table V through VII indicate that the best predictors for Rhetoric 1101 is high school English. Considered in combination with the other predictors these variables account for a significant part of the variance ($<.001$).^{*} The best predictors for Rhetoric 1102 are ACT natural science and high school natural science, but these variables account for only a marginal part of the variance. Because of the low multiple correlations between Rhetoric 1102 and the predictors, no significant predictors were found for Rhetoric 1102. Post hoc analysis (See Table VIII) reveals significant intercorrelations among the predictors for Rhetoric 1101.

DISCUSSION

An interpretation of the results suggests that 60% of the Big Ten universities require only one or no writing course, although in some cases when one course is required, it lasts a semester. Exemption of students from freshman writing is a common practice among all of the universities. The procedures utilized to exempt students are similar to those recommended in the literature on predictive validity and freshman English: scores on aptitude tests are most frequently used. Not all the schools surveyed, however, were persuaded that their procedures identified students who did

^{*}Because of the data placement/arrangement the researchers were unable to utilize high school grade point averages as one of the predictors. It is apparent, however, based on the correlational analysis that it would be the second best predictor of Rhetoric 1101.

not need a writing course. Of the ten directors of freshman writing programs who responded to the questionnaire, four were not satisfied with their system and were contemplating changes. Two others expressed slight reservations. Only three directors expressed unqualified satisfaction with their exemption procedures.

The correlational analysis and stepwise multiple (linear) regression show that high school English, percentile rank and grade point average and the PSATV score can be used to predict performance in Rhetoric 1101. The post hoc analysis also shows that there are significant ($< .001$) inter-correlations among the predictors. The results indicate that these variables which account for a highly significant part of the variance could be used collectively to exempt students from Rhetoric 1101. If scores above the mean on the four variables were utilized, 42% (170 out of 406) of the students would be eligible for exemption from Rhetoric 1101.* The scores needed are:

High school percental rank.....	75%
High school English.....	3.10
High school grade point average.....	3.10
PSAT verbal.....	45

Additional support for this criteria is that the average score in Rhetoric 1101 is 3.06, but students who meet the above criteria average 3.63, or almost one standard deviation above the mean. From this group, 72% of the students who received an A in Rhetoric 1101 had a 3.5 or above average in high school English.

While the strengths of the identified predictors are impressive, their limitations for purposes of exemption must be acknowledged. That students should be exempt from a course does not necessarily follow from the premise that they are likely to do well in it. For one, present competence cannot be presumed on the basis of predictive success. For another, identifying the students who are likely to succeed in a course might indeed be tanta-

*There was, however, much missing data. If students were above the mean on the available data, they were classified as eligible for exemption. Perhaps only 25% to 35% would be exempted if all data were available.

mount to identifying students who will benefit most from it. The fact that our best predictors are high school data gives credence to this latter claim. We may have identified many students who lack the writing skills taught in Rhetoric 1101 and have the capacity to acquire them through the course because on the evidence of their high school record, they perform well in classroom settings. This type of student should be the last type of student a program should want to exempt.

Acknowledging the potential limitations of predictive validity does not, however, invalidate it as a means for identifying potential exemptible students. Some checks must, however, be built into an exemption system that employs predictive validity. One check might be to set the predictors against actual performance. Potentially exemptible students identified on the basis of the predictors this study has identified might be invited to take an exemption test which would require them to demonstrate that they have the skills Rhetoric 1101 teaches. Or essays written by students who were exempted on the basis of prediction alone might be compared with essays written by students who have successfully completed one or both writing courses. (Procedures to guarantee impartiality and inter-rater reliability would, of course, have to be put in effect.) Another check might be to try to identify students who have the capacity to acquire on their own any writing skills they lack. This would require singling out those students who have superior verbal aptitude and the capacity to work independently as well as having met the criteria for exemption on the basis of predictive validity.

Another limitation of this study is that, presumably, it takes in its scope only cognitive factors as a basis of predictive success. This limitation is especially apparent when the identified predictors are used as a basis for exemption from Rhetoric 1101. A stated and much-emphasized objective of that

course is to increase students' confidence in their ability to develop their own writing style. The goal is to prevent students from developing the stilted, cliché-and jargon-ridden writing style that is so much in evidence today and which many writing experts claim has as its basis the failure of people to develop confidence in their writing ability. None of our predictors measure directly the degree of confidence that a student has in his own writing ability, although it may be presumed that those who have performed well in high school English are likely to have more confidence than those who have not.

As indicated above (see Results) there were no significant relationships between Rhetoric 1102 and the potential predictors. In fact, scores for Rhetoric 1101 and Rhetoric 1102 correlated at the .08 level only. This, however, is not surprising as the two courses focus on different types of writing. Rhetoric 1101 focuses on writing from personal experience; Rhetoric 1102 concentrates on research writing. Yet grades given in Rhetoric 1102 are relatively high: 40% of the students who received a grade received A's, and the mean score (N's, I's and W's excluded) was 3.26. If a high level of student success in a required course can be presumed to be an indication that many students who are required to take it do not need it, then the failure of our study to yield significant predictors is puzzling. W. B. Shrader maintains that often when there are no predictors for a course, the problem may be with the grading procedures in the course and not in the predictors: "Course grades are often based to a considerable extent on less carefully prepared tests than those being validated [as predictors]" (Shrader, p. 125).

It may be that instructors of Rhetoric 1102 differ markedly among themselves in the criteria they use for evaluating a student's performance. Certainly inter-rater reliability has plagued writing courses since they began.

RECOMMENDATIONS

A. Rhetoric 1101:

1. To be considered as eligible for exemption, incoming students should meet the following minimum criteria:
 - a. High school percentile rank above 75%;
 - b. High school grade point average above 3.10;
 - c. High school English composite above 3.10;
 - d. PSAT verbal score above 45.
2. At least until it is demonstrated that predictive success correlates with present competence, only a small percentage of clearly superior students who surpass the minimum criteria above by a considerable degree should be exempt on the basis of predictive success alone. For example, if this English composite grade were raised to 3.5 only approximately 20% of the students would be eligible for exemption.
3. Some or all of the other students who meet the minimum criteria should be invited and advised to demonstrate competence on an exemption test that is valid and reliable, that includes a writing sample, and that tests for the objectives of Rhetoric 1101.
4. Since PSATV scores are not available for many students, those who lack it should be invited to take the exemption test if they meet the other criteria.
5. To test the relationship of predictive success to competence, essays written by students exempted on the basis of predictive success should be compared with essays written by students who have successfully completed the course. Measures to assure impartiality and inter-rater reliability should be taken.
6. The Rhetoric Department should develop and offer elective writing courses that would attract and serve those students exempted from the course who, nevertheless, wish to take a writing course.

B. Rhetoric 1102

1. Since there are no strong predictors for this course and, therefore, no way of identifying potentially exemptible students, instructors of Rhetoric 1101 should inform all students that an exemption test is available. The test should have demonstrated reliability and validity, include a writing sample, and test for the competencies expected of students who have completed Rhetoric 1102.
2. The Freshman Division should seek to determine the cause of the failure of predictors to surface for Rhetoric 1102.
 - a. Instructors of Rhetoric 1102 might examine tests of proven validity as predictors of successful research writing and see if such a test predicts success in Rhetoric 1102.
 - b. Instructors might seek to determine the degree of inter-rater reliability among the instructors who teach the course and if it is low take measures to increase it.

SOURCES CITED

- Black, Hubert P. "The Efficiency of the American College Testing Program and High School Grades for Predicting the Academic Achievement of Chesapeake College Students." Baltimore, 1969. ERIC, D 029 626.
- Brigham, Carl C. A Study of Error. New York: College Entrance Examination Board, 1932.
- Fremer, John and Marjorie O. Chandler. "Special Studies." The College Board Admissions Testing Program: A technical report on . . . The Scholastic Aptitude Test and Achievement. Ed. William H. Angoff. New York: College Entrance Examination Board, 1971. Pp. 147-148.
- Godshalk, Fred I., Frances Swineford, and William E. Coffman. The Measurement of Writing Ability. Research Minograph No. 6. New York: College Entrance Examination Board, 1966.
- Munday, Leo. "Comperative Predictive Validities of the American College Tests and Two Other Scholastic Aptitude Tests," ACT Research Reports, No. 6, August 1965.
- Passons, William R. "Predictive Validities of the ACT, SAT, and High School Grades for First Semester GPA and Freshman Courses," Educational and Psychological Measurement, 27 (Winter 1967), 1143-44.
- Shrader, W. B. "The Predictive Validity of College Board Admissions Tests.: The College Board Admissions Testing Program: A technical report . . . relating to the Scholastic Aptitude Test and the Achievement Test. Ed. William H. Anghoff, New York: College Entrance Examination Board, 1971. pp. 117-45.

Table I

Exemption Survey Results

University	Predictors Tests	Predictors High School Data	Percent Exempted
Michigan State University	ACT E	Yes	5%
University of Michigan	SATV Advance Placement	No	17% one semester required
Illinois University	ACT E SATV	No	12% one course required
Indiana University	SATV	No	10% one course required
University of Iowa	ACT E	No	4-5%
Northwestern		No courses required	
Ohio State	ACT E SAT CLEP	No	6.2% one course required
Purdue	SATV Department Exam	Yes (H.S.R.)	8-9%
University of Wisconsin	U of Wisconsin English test	No	90% one course required
University of Minnesota	PSAT ACT	Yes (H.S.R.)	5-10%

Table II

Correlations of aptitude tests and high school academic achievement with Rhetoric 1101

Aptitude Measures/ Achievements	r	Mean	Standard Deviation	Number of Cases
PSAT:				
Verbal	.41	44.46	9.11	297
Math	.29	51.22	9.03	297
ACT:				
English	.13	23.23	11.16	214
Math	.21	22.09	6.69	212
Social Studies	-.001	25.27	15.19	212
Natural Science	.21	22.88	8.89	212
Composite	.09	25.96	13.74	212
High School Data:				
English	.44	3.15	.59	375
Math	.23	3.04	.52	376
Social Studies	.33	3.19	.63	371
Natural Science	.32	3.09	.69	363
H.S. Rank	.42	78.06	18.12	360
H.S. G.P.A.	.44	3.06	.53	339

Table III

Correlations of aptitude tests and high school academic achievement with Rhetoric 1102

Aptitude Measures/ Achievement	r	Mean	Standard Deviation	Number of Cases
PSAT:				
Verbal	.020	44.86	9.67	265
Math	-.01	51.46	9.51	265
ACT:				
English	-.006	23.50	11.01	184
Math	-.049	21.96	7.29	183
Social Studies	-.062	24.57	13.64	183
Natural Science	.13	22.81	9.33	183
Composite	-.052	26.71	15.44	183
High School Data:				
English	.083	3.16	.59	338
Math	.059	3.05	.52	338
Social Studies	.020	3.22	.61	333
Natural Science	.091	3.05	.69	324
H.S. Rank	.008	76.66	17.84	326
H.S. G.P.A.	.012	3.09	.50	304

Table IV

Correlations of aptitude tests and high school academic achievements for various academic majors with Rhetoric courses

Tests	Rhetoric 1101			Rhetoric 1102		
	Ag	For	H.E.	Ag	For	H.E.
PSATV	.43	.37	.40	.04	.23	-.11
PSATH	.25	.22	.49	.05	.09	-.14
ACTE	.15	.24	.11	-.03	.36	-.12
ACTM	.23	.17	.21	.12	.10	.01
ACTSS	-.09	.33	.03	-.16	-.03	-.01
ACTNS	.34	-.03	.05	.26	-.01	.13
ACT Composite	.17	.33	-.03	-.15	.29	-.02
H.S. English	.41	.45	.54	.10	.08	-.002
H.S. Math	.24	.23	.19	.07	-.01	.09
H.S. Social Studies	.29	.28	.47	.07	-.05	-.05
H.S. Natural Science	.26	.34	.43	.08	.07	.14
H.S. Rank	.43	.46	.55	.06	.11	-.22
H.S. G.P.A.	.40	.42	.58	.09	-.01	-.22

Table V

Multiple correlations for Rhetoric 1101 and Rhetoric 1102

Predictors	Rhetoric 1101	Predictors	Rhetoric 1102
H.S.E.	.44	ACT N.S.	.13
H.S.E., PSATV	.51	ACT N.S., PSATM,	.18
H.S.E., PSATV, ACT Composite	.62	ACT N.S., PSATM, ACT S.S.	.21
H.S.E., PSATV, ACT Composite, ACT S.S.	.78	ACT N.S., PSATM, ACT S.S., H.S.R.	.38
		ACT N.S., PSATM, ACT S.S., H.S.R., H.S.S.S.	.51
		ACT N.S., PSATM, ACT S.S., H.S.R., H.S.S.S., H.S.M.	.55

Table VI

Multiple correlation of predictors for Rhetoric 1101 and Rhetoric 1102

Predictors	Rhetoric 1101	Predictors	Rhetoric 1102
H.S.E.	.44	H.S.N.S.	.09
H.S.E., PSATV	.51	H.S.N.S., H.S.R.	.11
H.S.E., PSATV, H.S.R.	.52	H.S.N.S., H.S.R., H.S.E.	.13
H.S.E., PSATV, H.S.R., H.S.M.	.53	H.S.N.S., H.S.R., H.S.E., PSATM	.14
H.S.E., PSATV, H.S.R., H.S.M., PSATM	.53	H.S.N.S., H.S.R., H.S.E., PSATM, H.S.M.	.15
H.S.E., PSATV, H.S.R., H.S.M., PSATM, H.S.S.S.	.53	H.S.N.S., H.S.R., H.S.E., PSATM, H.S.M., H.S.S.S.	.16

Includes only high school and PSAT data 18

Table VII

Multiple Correlations of predictors for Rhetoric 1101 and Rhetoric 1102

Predictors	Rhetoric 1101	Predictors	Rhetoric 1102
H.S.E.	45	ACT N.S.	.13
H.S.E., H.S.R.	47	ACT N.S., ACT M	.16
H.S.E., H.S.R. ACT S.S.	51	ACT N.S., ACT M., ACT E.	.18
H.S.E., H.S.R. ACT S.S., ACT C	54	ACT N.S., ACT M., ACT E., H.S.R.	.36
H.S.E., H.S.R., ACT S.S., ACT C. ACT N.S.	74	ACT N.S., ACT M., ACT E., H.S.R., H.S.E.	.89
H.S.E., H.S.R., ACT S.S., ACT C., ACT N.S., H.S.M.	88	ACT N.S., ACT M., ACT E., H.S.R., H.S.E., H.S.S.S.	.94

Includes only high school and ACT data

Table VIII

Correlations Among Predictors

D.V.	H.S.E.	H.S.R.	H.S.G.P.A.	PSATV
H.S.E.		.70	.83	.41
H.S.R.			.83	.40
H.S.G.P.A.				.47
PSATV				

All are significant below the .001 level